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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/571,143

11/27/2006

Andrew Charles Ratcliffe Tyrer

3259-102

3679

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7590

05/19/2008

ROTHWELL, FIGG, ERNST & MANBECK, P.C.

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WASHINGTON, DC 20005

EXAMINER

OLSON, LARS A

ART UNIT

PAPER NUMBER

3617

NOTIFICATION DATE

DELIVERY MODE

05/19/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PTO-PAT-Email@rfem.com

Office Action Summary	Application No. 10/571,143	Applicant(s) TYRER ET AL.	
	Examiner Lars A. Olson	Art Unit 3617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 November 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>03092006</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

1. A preliminary amendment was received from the applicant on March 9, 2006.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 10 and 11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Claims 10 and 11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite in that it fails to point out what is included or excluded by the claim language. This claim is an omnibus type claim.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taquino (US 6,695,540).

Taquino discloses a method for making a vortex induced vibration suppression cladding section, as shown in Figures 1-11, said method being comprised of the steps of molding an outer layer, defined as Part #31, that is comprised of a polymeric material incorporating an antifouling material, as described in lines 18-21 of column 5, where said molding is a tubular body which is longitudinally split and deformable, as shown in Figures 3-5, to permit an elongate underwater member, defined as Part #32, to be introduced into it.

Taquino, as set forth above, discloses all of the features claimed except for the step of molding a plastic inner structural layer within said outer layer.

The use of a plastic molded member having inner and outer layers instead of a single layer would be considered by one of ordinary skill in the art to be an obvious multiplication of parts for the purpose of providing said plastic molded member with increased strength.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to utilize a plastic molded member having inner and outer layers in place of the single layer molding as disclosed by Taquino for the purpose of providing a method for making a cladding section with increased strength.

7. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Taquino in view of Blair et al. (US 6,019,549).

Taquino, as set forth above, discloses all of the features claimed except for the step of molding a cladding section with at least one hollow protruding feature for suppressing vortex induced vibration.

Blair et al. discloses a vortex shedding strake wrap, as shown in Figures 1-3, that is comprised of a elastomeric cladding section, defined as Part #21, that includes at least one hollow protruding strake, defined as Part #37, for reducing or eliminating vibration induced by flowing ocean currents that cause vortex formation.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to utilize a cladding section that includes at least one hollow protruding feature, as taught by Blair et al., in combination with the cladding section as disclosed by Taquino for the purpose of providing a method for making a cladding section with hollow strakes in order to reduce the overall weight of said cladding section.

8. Claims 1, 2, 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taquino in view of Inoue (US 5,423,631).

Taquino discloses a vortex induced vibration suppression device, as shown in Figures 1-11, that is comprised of a plastic molding with a tubular portion, defined as Part #11, for receiving an elongate underwater member, defined as Part #32, said tubular portion being split along its length and deformable to permit said member to be introduced into said tubular portion, as shown in Figure 5, said tubular portion also having at its exterior at least one strake, defined as Parts #15-17, to suppress vortex induced vibration.

Taquino, as set forth above, discloses all of the features claimed except for the use of an outer layer incorporating antifouling material.

Inoue discloses an antifouling structure, as shown in Figures 1 and 2, that includes a layer of antifouling material, defined as Part #1, which can be attached to a structural layer, defined as Part #5.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to utilize a layer of antifouling material in combination with a structural layer, as taught by Inoue, in combination with the device as disclosed by Taquino for the purpose of providing a cladding section that inhibits the deposition of marine organisms.

9. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taquino in view of Inoue, and further in view of Blair et al.

Taquino in combination with the teachings of Inoue shows all of the features claimed except for the use of a hollow strake.

Blair et al., as previously cited, discloses a vortex shedding strake wrap that is comprised of a elastomeric cladding section, defined as Part #21, that includes at least one hollow protruding strake, defined as Part #37, for reducing or eliminating vibration induced by flowing ocean currents that cause vortex formation.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to utilize a cladding section that includes at least one hollow strake, as taught by Blair et al., in combination with the device as disclosed by Taquino for the purpose of providing a cladding section with hollow strakes in order to reduce the overall weight of said cladding section.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Taquino (US 6,896,447) and McMillan et al. (US 6,565,287) disclose vortex induced vibration suppression cladding sections for mounting on an elongate underwater member.

11. Any inquiry concerning this communication from the examiner should be directed to Exr. Lars Olson whose telephone number is (571) 272-6685.

lo

March 11, 2008

/Lars A Olson/

Primary Examiner, Art Unit 3617